Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking into whether the curtailment and diversion priorities for noncore natural gas customers in the service territories of Pacific Gas and Electric Company, and Southern California Gas Company should be changed.	Rulemaking 01-03-023 (Filed March 15, 2001)

OPINION DECLINING TO PROVIDE SERVICE PRIORITIES TO ELECTRIC GENERATORS BASED ON HEAT RATE IN THE EVENT OF A NATURAL GAS SHORTAGE

Summary – Proposed Changes in Gas Service Priorities Are Not Needed

Our examination of the natural gas transmission and storage infrastructures of Pacific Gas and Electric (PG&E) and Southern California Gas Company (SoCal Gas) leads us to conclude that granting a new service priority to electric generators for natural gas service based on a plant's heat rate – the rate at which it converts gas energy into electric energy – is not needed to avoid disruptions in electric service.

In fact, granting such a priority may prove counterproductive, because it may decrease the reliability of the electric grid and discourage the prudent storage of natural gas. Since the stability of the electric grid depends not only on the quantity of electricity generated, but also the location of the generation, granting an electric generator a priority based on its heat rate may, in the event of a shortage, diminish the availability of gas to reliability must-run plants, whose operation can prove critical to the operation of the electric grid.

Finally, PG&E's and SoCal Gas's tariffs enable electric generators holding gas storage rights to obtain services that ensure gas service even if system curtailments occur. Therefore, providing higher service priorities to an electric generator based on its heat rate would undermine current policies that both encourage and allow large gas users to ensure their supply of gas through a range of tariff services, including gas storage.

Background – Ensuring Reliable Gas Supplies to Electric Generators

Currently, PG&E and SoCal Gas each have tariffs that determine service priorities in the event of a natural gas curtailment or diversion. The priority of service differs for the customer depending on the service purchased and the specific terms of the utility's tariffs.[1] For example, under each tariff, all purchasers of noncore gas receive similar treatment in the event of curtailments. On PG&E's system, all noncore end-user customers have gas diverted on a pro rata basis when curtailments affect the noncore service category. For SoCalGas, those customers purchasing interruptible intrastate service are interrupted according to the "percentage of default rate" that they pay, with customers who pay the lowest "percentage of default rate" curtailed first.

Similarly, under the tariffs of PG&E and SoCal Gas, those who purchase and store gas can obtain gas even without access to "flowing gas." PG&E's tariff notes "scheduled deliveries from storage using Firm or As Available transmission services will be treated as the highest priority Firm service." For SoCal Gas, a "firm unbundled storage withdrawal" receives a higher dispatch

[1] The rulemaking that initiated this proceeding, Rulemaking (R.) 01-03-023, describes the curtailment priorities of PG&E and those of SoCal Gas in detail.

priority than either interruptible or firm service. Therefore, withdrawals from storage enable noncore gas customers to ensure their access to gas even when flowing gas supplies prove inadequate.

Decision (D.) 01-12-019 in this proceeding determined that granting a special priority to electric generators for natural gas service is not needed at this time to avoid disruptions in electric service. Moreover, the investigation determined that those electric generators with gas storage rights could obtain services that ensure gas service even if system-wide gas curtailments occur.

D.01-12-019, however, states that the rulemaking "did not ask whether the Commission should develop rules for allocating gas among electric generators in times of gas curtailments."[2] Moreover, it noted that there was almost no record in this proceeding on this issue, and established a cycle of comments and replies to develop a record on this matter. These comments were to "address whether allocations based on considerations of the generation facility's heat rate or other factors can effectively improve the supply and reliability of electricity during times of natural gas curtailments."[3] This is the question we now investigate.

Procedural History

D.01-12-019, adopted on December 11, 2001, ordered respondents and permitted interested parties to file comments and replies on the gas allocation question. The Office of Ratepayer Advocates (ORA), PG&E, and SoCalGas filed comments on January 15. In addition, Dynegy Marketing and Trade (Dynegy) filed a petition to intervene on January 15, 2002. Dynegy joined with Duke Energy North America and Duke Energy Trading and Marketing

[2] D.01-12-019, *mimeo.,* p. 19.

[3] *Ibid.*, Ordering Paragraph 2, p. 35.

(Joint Commenters) to file comments. PG&E, Joint Commenters, and the Southern California Generation Coalition (SCGC) filed reply comments on February 1, 2002.

Should the Commission Alter Gas Service Priorities Among Electric Generators During Times of Gas Curtailments?

The issue of whether the Commission should change curtailment priorities among electric generators at this time is the only open question in this rulemaking. We summarize the responses of the five parties commenting on this issue below.

Position of Parties

ORA opposes providing higher priorities within the electric generator class "on the basis of unit efficiencies or any other unit operating factors, including must run status."[4] ORA states that occurrences of gas curtailments are rare, therefore the further refinement of priorities for rationing gas within the electric generator customer class is not worthwhile. ORA contends that designing curtailment priorities based on operating characteristics would prove complicated to implement and difficult to enforce. ORA further notes that providing higher priorities to certain electric generators creates a disincentive for these units to store gas. ORA recommends that the Commission close this proceeding with no change to the current curtailment priorities.

PG&E also opposes special rules for allocating gas among electric generators during either a gas diversion or a gas curtailment as not "practical, or

[4] Comments of the ORA in Response to D.01-12-019, January 15, 2002, p. 2.

necessary."[5] PG&E notes that in the case of a gas diversion, which would occur on PG&E's backbone pipeline system, there is "no reasonable method for differentiating among gas suppliers according to the end-use customer(s) they serve."[6] In the case of curtailments, which typically occur on local transmission systems due to location-specific problems, PG&E notes that "it is essential that PG&E retain maximum flexibility for curtailing deliveries to all noncore customers in order to protect service to core customers."[7] PG&E maintains that no changes to Commission rules would be beneficial or feasible at this time and recommends that the Commission close this rulemaking without any rule changes.

SCGC opposes any change in the gas allocation criteria, and notes that a proposal to allocate gas based on a plant's heat rate "contravenes each of the criteria used in D.01-12-019."[8] First, SCGC notes that a higher priority for more efficient generators "is not required at this time because adequate gas supplies make curtailments and diversions unlikely this year."[9] Second, SCGC states that a proposal that allocates gas to efficient generators would certainly diminish the incentive for these generators to use storage. Third, SCGC observes that basing gas allocations and curtailments on efficiency alone may actually decrease the reliability of the electric system because often it is the location of a plant, rather

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[5] Opening Comments of PG&E (U 39 G) in Response to Ordering Paragraph 2 of D.01-12-019, January 15, 2002, p.2.

[6] *Ibid.*

[7] *Ibid.*

[8] Southern California Generation Coalition Reply Comment, February 1, 2001, p. 1.

[9] *Ibid.*

than its efficiency, that is critical to the stability of the grid. Fourth, SCGC believes that proposed allocation rules would be difficult to implement and enforce. In conclusion, SCGC recommends that the Commission not change allocation rules.

SoCalGas, in contrast, supports the idea of allocating gas to electric generators based on their efficiency, but only in a very narrow set of circumstances. SoCalGas expresses broad support for current curtailment priorities concerning noncore interruptible gas customers, who are curtailed according to the percentage of default rate that they pay, with those paying the lowest percentage curtailed first. Customers paying the same percentage of default are curtailed on a pro-rata basis, except the utility electric generators must be curtailed before cogenerators paying the same percentage of default. SoCalGas proposes no change in this curtailment scheme.

SoCalGas explains that it has proposed revisions to the existing curtailment policy for firm noncore customers, who would be curtailed after interruptible customers in Application 01-09-024. Specifically, in this application, SoCalGas asks that, instead of the current "rotating block" curtailment scheme, the Commission authorize distinguishing between "small" and "large" firm noncore customers and for authority to curtail "large" firm noncore customers on a pro rata basis before curtailing "small" firm noncore customers. Within this class of "large" firm noncore customers, SoCalGas "believes it may be appropriate to curtail large firm noncore electric generation customers on the basis of heat rates, or some other efficiency measure, rather than on a straight pro

rata basis.[10] SoCalGas, however, opposes providing special priority allocations to reliability must run facilities because it would create uncertainty and impose "tremendous implementation difficulties."[11]

SoCalGas gas notes that the implementation details of an efficiency based allocation rule may prove difficult to discern and proposes a Commission sponsored workshop to address issues that complicate the implementation of this curtailment program. SoCalGas believes that "the appropriate triggering mechanism may be a stage three alert."[12] SoCalGas also notes that implementing such an allocation system would require the Commission to impose restrictions on curtailment transfers, a right that all firm and interruptible customers now possess.

The Joint Commenters disagree with SoCalGas. The Joint Commenters recommend that the Commission adopt a system for "allocating gas among electric generation customers similar to the interim allocating system the Commission adopted for San Diego Gas and Electric Company in D.01-06-008."[13] In that decision, the Joint Commenters note that in that decision, the Commission endorsed a pro rata allocation of gas among eligible electric generator companies, with special provision made for those units that are required to maintain generation for reliability reasons. The Joint Commenters support a pro rata approach that would allocate available gas supply among eligible electric

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[10] Comments of SoCalGas on Allocation of Gas among Electric Generators during Gas Curtailments, January 15, 2002, p. 4.

[11] *Ibid.*, p. 4.

[12] *Ibid.*, p. 6.

[13] Comments of Duke Energy North America, Duke Energy Trading and Marketing, and Dynegy Marketing and Trade in Response to D.01-12-019, January 15, 2002, p. 2.

generation customers who had elected firm service and would curtail interruptible customers, including electric generators, before firm service customers. In addition, they argue that any system for curtailing deliveries to electric generation customers "must accommodate the electric system's reliability requirements."[14]

On the other hand, the Joint Commenters oppose the allocation of gas on the basis of a generating unit's heat rate, because they believe that such an allocation could threaten the reliability of the electric grid. They note that a heat-rate based allocation of gas to electric generation customers ignores the fact that the reliability of the electric system is often "more dependent on the *location* of generation than on the *quantity* of electricity produced by generation facilities."[15] In reply comments, Joint Commenters characterize SoCalGas proposals as ignoring the consequences of local outages, contrary to D.01-06-008 and at odds with recent experience, in which shortages were caused by "constraints in SDG&E's transportation system."[16] They therefore recommend that the Commission either extend the pro rata curtailment scheme adopted in D.01-06-008 to Edison's and PG&E's service territories and expand it to include commercial and industrial customers or simply close the proceeding and leave the current curtailment system in place.

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[14] *Ibid.*, p. 5.

[15] *Ibid.*, p. 6.

[16] Reply of Duke Energy North America, Duke Energy Trading and Marketing, and Dynegy Marketing and Trade to Comments in Response to D.01-12-019.

Discussion – Providing A Gas Service Priority to Electricity Generator Based on Heat Rate or Other Operating Characteristic Is Not Reasonable at This Time

As we noted in D.01-12-019, the Commission has broad statutory authority to amend decisions, rules, regulations and tariffs, but statutes guide the exercise of this authority to promote non-discriminatory rates and electric and gas service that is both efficient and reliable. A change in curtailment policy to provide a special gas service priority among electric generators should be adopted only if such a change has a rational basis and promotes the goals of efficient, reliable service. We must consider both the benefits that providing gas service priority among electric generators based on heat rate or some other factor would provide to Californians and the harms that such a change in curtailment policy is likely to produce.

As stated in D.01-12-019, granting a service priority to electric generators in the event of a natural gas shortfall or curtailment is unlikely to produce any benefits over the next year. This is because California has adequate gas supplies that make a service disruption highly unlikely. ORA correctly notes that the occurrences of gas curtailments are rare. Thus, it is not sensible to further the priorities for rationing gas. Moreover, the alternative proposals of SoCalGas to set priorities based on heat rates and of the Joint Commenters to set priorities based on the needs of the grid make it clear that determining which scheme best promotes the reliability of the grid is not readily accomplished. Similarly, the issues identified by PG&E make the implementation and enforcement of a generator-specific rationing policy impractical on its system. SoCalGas itself recognizes that implementing its proposal is far from straightforward, and it requests a workshop and further study as part of this proceeding.

There may be, merits to the Joint Commenters suggestion that the Commission authorize rationing of gas by pro rata cut-backs among members of an affected customer class. Nevertheless, there are no reasons to decide this matter in this proceeding: Joint Commenters point out that this is already the rationing policy in SDG&E's service territory. PG&E replies that it follows this policy in its service territory, and SoCalGas notes that it has applied to the Commission to ration gas through a pro rata system in A. 01-09-024.[17] Thus, the use of pro rata cutbacks covers much of the state already and is under consideration in the one remaining area where it is not already the policy for rationing.

Further, assigning a gas priority to particular electric generators creates a system of incentives that discourages these favored generators from purchasing the tariffed services now available that can enable customers to avoid a loss of gas even when supplies are short. As SCGC points out, just as providing a priority gas allocation to electric generators would diminish incentives on electric generators to store gas as a class of consumers, assigning a service priority to particular generators would diminish the incentives to store gas on those generators who receive the allocation priority.

In addition, the proposed changes, as noted by SCGC, are broad, and may have the counterproductive outcome of denying gas to generators whose operation is critical to the stability of the electric grid. In particular, the stability of the electric grid depends not only on the *quantity* of electricity generated, but also on the *location* of the electricity. Indeed, the designation of certain plants as

[17] SoCalGas Comments, p. 2.

"reliability-must-run" indicates that the stable operation of the grid can depend on the operation of specific plants. As the Joint Commenters point out, this understanding underlies D.01-06-008, which adopted a scheme for allocating gas among generators when an insufficient supply of gas is available to meet all generation needs. Thus, relying simply on a plant's heat rate for assigning a priority in allocating gas may fail to enhance the stability of the electric grid's operations.

Finally, ensuring compliance with tariffs that give electric generators a service priority would require a complicated and costly enforcement mechanism. When gas is delivered to a location that contains several different generation facilities, only the direct monitoring of the use of plants will ensure that the allocation comports with the rationing scheme. As ORA points out, once gas is delivered to a site with several generating plants, it "may be difficult to monitor whether it was actually burned in the unit provided with the higher priority."[18] Monitoring to ensure that gas is used consistent with the adopted allocation system creates a difficult task for regulators.

In summary, providing a priority allocation to electric generators based on their heat rates poses a difficult operational and regulatory task that produces few, if any, benefits and fails to reflect the fact that the reliability of the electric grid more frequently depends on the *location* of electric power, rather than on the absolute *quantity* of electric power available. Pro rata rationing of gas among members of a common service class has already been adopted in the service territory of PG&E and SDG&E and is under consideration in SoGalGas's service

[18] ORA, Comments, p. 3.

territory. For these reasons, we need take no step to alter the current method for allocating gas between electric generators based on their heat rate or other customer-specific characteristic in this proceeding.

Petition of Dynegy Marketing and Trade to Intervene

On January 15, 2002, Dynegy petitioned to intervene in this proceeding as a party. Dynegy cited its ownership interests in electric generating plants in the service area of SoCalGas, and noted that it will be "directly affected by any proposals on the allocation of gas to electric generation customers that parties might present in response to the request of D.01-12-019."[19] Dynegy notes that it participated in Investigation 00-11-002, and states that it believes that the Commission would benefit from the "views of parties who considered very similar issues in that earlier investigation."[20] In this proceeding, Dynegy has filed comments and replies jointly with DENA and DETM, who are already parties to this proceeding.

We grant the petition of Dynegy both because the resolution of issues in this proceeding could affect its interests and because the record of this proceeding benefits from the views of parties who have already considered these issues in other proceedings.

Comments on Draft Decision

The draft decision of Administrative Law Judge Sullivan in this matter was mailed to the parties in accordance with Pub. Util. Code §311(g)(1) and Rule 77.1 of the Rules of Practice and Procedure. Duke Energy Trading and Marketing L.L.C, Duke Energy North America, L.L.C. and Dynergy Marketing and Trade

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[19] Petition of Dynegy Marketing and Trade to Intervene, January 15, 2002, p. 1.

[20] *Ibid.*, p. 2.

(filing jointly) and SCGC filed comments on July 8 expressing support for the draft decision and urging adoption by the Commission. There were no reply comments.

Findings of Fact

1. Barring unforeseen circumstances or unlikely weather events, PG&E and SoCalGas should have adequate gas supplies to meet system needs over the next year.

2. Since gas supplies over the next year are adequate for all core and noncore customers, it is not reasonable to expect that granting gas service priorities to specific electric generators based on heat rates will avoid any service curtailments.

3. Electric generators with gas storage capacity can avoid gas curtailments even when supplies are short by placing gas in storage when supplies are plentiful.

4. Granting a gas priority to those electric generators with high heat rates is a policy that may fail to increase the reliability of the electric grid and will decrease the incentive on such favored facilities to store gas.

5. The reliable functioning of the electricity grid in California depends on both the quantity of electricity generated and the location of the generating facilities.

6. Granting gas service priorities to specific electric generators based on their heat rates or other operating characteristics will prove complex to implement and require enforcement.

7. Creating gas service priorities at this time for electric generators with a high heat rate is not reasonable or in the public interest because it is not needed, will discourage the use of storage, may have unintended adverse consequences

that make the electric grid less reliable, and will incur implementation and enforcement costs.

8. Dynegy filed a petition to intervene on January 15, 2002.

9. Dynegy has interests that are directly affected by the proposals before the Commission in this proceeding.

Conclusions of Law

1. Pursuant to §451 and § 453, the Commission should not modify the gas tariffs of PG&E and SoCalGas to grant gas service priorities to electric generators based on their heat rate.

2. The Commission should grant Dynegy's January 15, 2002 Petition to Intervene in this proceeding.

3. This proceeding should be closed.

O R D E R

IT IS ORDERED that:

1. Dynegy Marketing and Trade's Petition to Intervene in this proceeding is granted.

2. This proceeding is closed.

This order is effective today.

Dated _____, at San Francisco, California.